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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,814	11/06/2001	Allen Fong-Chin Lin	L9079.01115	4324

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EXAMINER

YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/985,814

Applicant(s)

LIN, ALLEN FONG-CHIN

Examiner

Sam Chuan C. Yao

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite, because it is unclear what is intended by the phrases "*calcium carbonate master-batch (40~70%)*", "*calcium carbonate master-batch (M₁B 40~70%)*" and "*titanium dioxide master-batch (M₁B 30~60%)*". Is the recited % range in the parenthesis referring to the amount of an inorganic filler (i.e. calcium carbonate or titanium dioxide) or the amount of a polypropylene matrix? Moreover, what basis is applied in the recited % range? For the purpose of examining these phrases, it is assumed these phrases require: an inorganic master batch is formed by blending inorganic powder (i.e. calcium carbonate & titanium dioxide) in a polypropylene primary raw material in amount of 40-70 wt% of calcium carbonate and 60-30 wt% of polypropylene, or 30-60 wt% of titanium dioxide and 70-40 wt% of polypropylene; and this inorganic master-batch is then blended with other components to form the recited compositions limitation (1) and (2). Moreover, this claim is also indefinite because the phrases "*the inorganic powder*", "*the required dispersion*" and "*the cooling/shaping device*" do not have positive antecedent basis.

Claim 3 is indefinite, because the recited list of inorganic materials appears to broaden claim 1 than further defining claim 1. Note that: claim 1 requires using calcium carbonate and titanium dioxide. This claim now has laundry list of inorganic materials which are not recited in claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000211008 A in view of Lin (US 5,552,011) and optionally further in view of Schut et al (US 6,376,058).

JP '008, drawn to a process of making a 3-layer bi-axially oriented polypropylene pearl gloss synthetic paper, substantially teaches the process recited in claim 1 (see the whole disclosure of a computer English translation; for instance, limitations (1) and (2), see page 3 paragraph [0006] to page 4 line 10 and figure 4; limitation (3), see page 4 line 7 and page 5 discussion of extruder equipment 1; page 5 last paragraph to page 6 line 4; and limitations 5-8, see page 6 paragraph 1; also see pages 7-9). JP '008 further teaches that "[t]he production rate of a manufacturing process is quick and reaches in a maximum of 3.5[?] in an hour" at a low production cost (question mark added, because it's not legible; pages 9-10). JP '008 differs from the recited claims in that, JP '008 does not

appear to teach blending calcium carbonate master batch (40-70 wt%) and titanium dioxide (30-60 wt%) with other components in compositions (1) and (2) before compositions (1) and (2) are fed into their respective extruders. However, it would have been obvious in the art to blend calcium carbonate master batch (60 wt%) and titanium dioxide master-batch (50 wt%) with other components in composition limitations (1) and (2) and use these composition limitations as feed materials in an extrusion operation, because: a) Lin '011, drawn to making a 3-layer bi-axially oriented polypropylene pear synthetic paper of the type taught by JP '008, teaches the desirability of forming master-batches of calcium carbonate (60 wt%) and titanium dioxide master-batch (50 wt%), blending the master-batches with other components of polypropylene and/or polyethylene compositions for use as feed materials in an extrusion operation (examples 1-3; figure 4); and optionally, b) Schut et al teaches using an inorganic master batch (25 wt% LDPE, 25 wt% calcium carbonate and 50 wt% titanium) to form an inorganic filled polymeric blend, and then feeding the inorganic filled polymeric blend to an extruder to prevent the inorganic powder from *"coming to the surface to cause dusting"* since *"the polyethylene matrix is in a sticky molten state"* so that it *"appears to bind"* the inorganic powders (col. 6 lines 38-62).

As for a limitation in limitation (6) of "cooling down at a temperature of 25 °C", see toward the bottom on page 7 of JP '008 regarding "annealing and controls the contraction of a synthetic paper" and example 1 of Lin '011 regarding tempering and cooling to control its reducing rate. The recited cooling temperature would

Art Unit: 1733

have been obvious in the art, because one in the art would have applied a conventional cooling temperature or would have determined, by routine experimentation, an optimal cooling temperature.

Any difference(s) which might possibly/conceivably exist between envisioned, claimed invention and the teachings of the applied references (not explicitly address by Examiner) is/are held/seen NOT to constitute patentable difference(s).

With respect to claim 2, the recited air-drawing devices recited in this claim is conventional in the art. Various types of air-drawing device are used for venting of volatile materials emitted during an extrusion operation.

With respect to claim 4, see column 3 lines 43-67 of the Lin '011.

With respect to claim 5, see page 4 of the JP '008 patent.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 4 as applied to claim 1 above, and further in view of Tunashima et al (US 6,126,915).

It would have been obvious in the art to surface treat inorganic powder in forming a master-batch in the modified process taught by JP '008, because it is a common practice in the art to surface treat inorganic powder in forming a master-batch to enhance the characteristics of an extruded sheet as exemplified in the teachings of Tunashima et al (abstract; col. 1 lines 14-27).

Art Unit: 1733

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. It is suggested to replace "~" with "-" in all recited claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (703) 308-4788. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W Ball can be reached on (703) 308-2058. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
09-27-03